Complete Summary

TITLE

Adult diabetes: percentage of patients who were prescribed aspirin therapy (dose greater than or equal to 75 mg).

SOURCE(S)

National Diabetes Quality Improvement Alliance performance measurement set for adult diabetes. Chicago (IL): National Diabetes Quality Improvement Alliance; 2003 May 1. 11 p.

Brief Abstract

DESCRIPTION

This measure assesses the percentage of adult diabetes patients aged 18-75 years who were prescribed aspirin therapy (dose greater than or equal to 75 mg).

This measure is used for the purpose of quality improvement.

RATIONALE

Daily low-dose aspirin therapy is important for both primary and secondary prevention of cerebral and cardiac events.

Aspirin has been used as a primary and secondary therapy to prevent cardiovascular events in diabetic individuals.

American Association of Clinical Endocrinologists/American College of Endocrinology (AACE/ACE) recommends that optimal care of the diabetic patient include the use of antiplatelet therapy for prevention of vascular events. Prevention of vascular events by the antiplatelet effect of daily low-dose aspirin (as low as 30 mg/day) has been well established. Daily low-dose aspirin therapy is important for both primary and secondary prevention of cerebral and cardiac events.

American Diabetes Association (ADA) recommends aspirin therapy as a secondary prevention strategy in diabetic men and women who have evidence of large vessel disease. This includes diabetic men and women with a history of myocardial infarction (MI), vascular bypass procedure, stroke or transient ischemic attack, peripheral vascular disease, claudication, and/or angina.

Use aspirin therapy (75-325 mg/day) in all adult patients with diabetes and macrovascular disease.

- Do not use aspirin in patients younger than 21 years of age because of the increased risk of Reye´s syndrome.
- Recommends that people with aspirin allergy, bleeding tendency, anticoagulant therapy, recent gastrointestinal bleeding, and clinically active hepatic disease are not candidates for aspirin herapy.

ADA recommends aspirin therapy as a primary prevention in high-risk men and women with type 1 or type 2 diabetes. This includes:

- Family history of coronary heart disease
- Cigarette smoking
- Hypertension
- Obesity (greater than 120% desirable weight); BMI greater than 27.3 kg/m2 in women, greater than 27.8 kg/m2 in men
- Albuminuria (micro or macro)
- Lipids: cholesterol greater than 200 mg/dL, low-density lipoprotein (LDL) greater than or equal to 100 mg/dL, high-density lipoprotein (HDL) less than 45 mg/dL in men and less than 55 mg/dL in women
- Age older than 30 years

PRIMARY CLINICAL COMPONENT

Diabetes mellitus; aspirin therapy

DENOMINATOR DESCRIPTION

All patients diagnosed with diabetes aged 18-75 years

NUMERATOR DESCRIPTION

The number of patients from the denominator who were prescribed aspirin therapy (dose greater than or equal to 75 mg)

Evidence Supporting the Measure

PRIMARY MEASURE DOMAIN

Process

SECONDARY MEASURE DOMAIN

Not applicable

EVIDENCE SUPPORTING THE MEASURE

A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence
A formal consensus procedure involving experts in relevant clinical, methodological, and organizational sciences

One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

NATIONAL GUIDELINE CLEARINGHOUSE LINK

- The American Association of Clinical Endocrinologists medical guidelines for the management of diabetes mellitus: the AACE system of intensive diabetes self-management--2002 update.

Evidence Supporting Need for the Measure

NEED FOR THE MEASURE

Wide variation in quality for the performance measured

EVIDENCE SUPPORTING NEED FOR THE MEASURE

American Association of Clinical Endocrinologists, American College of Endocrinology. Medical guidelines for the management of diabetes mellitus: the AACE system of intensive diabetes self-management--2002 update. Endocr Pract 2002 Jan-Feb;8(Suppl 1):40-82. [96 references]

Aspirin therapy in diabetes. Diabetes Care 2002 Jan;25(Suppl 1):S78-9. [4 references]

Standards of medical care for patients with diabetes mellitus. Diabetes Care 2002 Jan;25(Suppl 1):S33-49. [91 references]

State of Use of the Measure

STATE OF USE

Current routine use

CURRENT USE

Internal quality improvement

Application of Measure in its Current Use

CARE SETTING

Ambulatory Care
Community Health Care
Managed Care Plans
Physician Group Practices/Clinics
Rural Health Care

PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

Advanced Practice Nurses
Physician Assistants
Physicians

LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED

Individual Clinicians

TARGET POPULATION AGE

Age 18-75 years

TARGET POPULATION GENDER

Either male or female

STRATIFICATION BY VULNERABLE POPULATIONS

Unspecified

Characteristics of the Primary Clinical Component

INCIDENCE/PREVALENCE

- Total: 18.2 million people - 6.3% of the population - have diabetes
- Diagnosed: 13 million people
- Undiagnosed: 5.2 million people
- New cases diagnosed per year: 1.3 million
- About one third of these individuals do not know that they have the disease.

EVIDENCE FOR INCIDENCE/PREVALENCE

American Diabetes Association. Diabetes statistics. [internet]. Alexandria (VA): American Diabetes Association; [cited 2004 Jun 11]. [2 p].

National diabetes fact sheet: national estimates on diabetes. [internet]. Atlanta (GA): Centers for Disease Control and Prevention (CDC), National Center for Chronic Disease Prevention and Health Promotion; 2003 [updated 2003 Dec 04]; [cited 2004 Feb 01]. [8 p].

ASSOCIATION WITH VULNERABLE POPULATIONS

Unspecified

BURDEN OF ILLNESS

- Diabetes is the leading cause of end-stage renal disease, accounting for 43% of new cases. Adults with diabetes account for more than 60% of nontraumatic lower limb amputations and are also twice as likely to have heart disease than people without diabetes.

- Diabetes is the sixth leading cause of death listed on U.S. death certificates in 2000. This is based on the 69,301 death certificates in which diabetes was listed as the underlying cause of death. Altogether, diabetes contributed to 213,062 deaths.
- Complications from diabetes include hearth disease, stroke, hypertension, retinopathy, end-stage renal disease, peripheral neuropathy, non-traumatic lower limb amputations, periodontal disease, pregnancy complications affecting mother and fetus, ketoacidosis, and coma.
- Daily low-dose aspirin therapy is important for both primary and secondary prevention of cerebral and cardiac events.
- Aspirin has been used as a primary and secondary therapy to prevent cardiovascular events in diabetic individuals.

EVIDENCE FOR BURDEN OF ILLNESS

American Association of Clinical Endocrinologists, American College of Endocrinology. Medical guidelines for the management of diabetes mellitus: the AACE system of intensive diabetes self-management--2002 update. Endocr Pract 2002 Jan-Feb;8(Suppl 1):40-82. [96 references]

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Standards of medical care for patients with diabetes mellitus. Diabetes Care 2002 Jan;25(Suppl 1):S33-49. [91 references]

UTILIZATION

Unspecified

COSTS

- 2002 cost of diabetes in the United States: $132 billion
- Direct medical costs: $92 billion
- Indirect costs: $40 billion (disability, work loss, premature mortality)

EVIDENCE FOR COSTS

American Diabetes Association. Diabetes statistics. [internet]. Alexandria (VA): American Diabetes Association; [cited 2004 Jun 11]. [2 p].

National diabetes fact sheet: national estimates on diabetes. [internet]. Atlanta (GA): Centers for Disease Control and Prevention (CDC), National Center for Chronic Disease Prevention and Health Promotion; 2003 [updated 2003 Dec 04]; [cited 2004 Feb 01]. [8 p].

Institute of Medicine National Healthcare Quality Report Categories

IOM CARE NEED

Living with Illness

IOM DOMAIN

Effectiveness

Data Collection for the Measure

CASE FINDING

Users of care only

DESCRIPTION OF CASE FINDING

All patients diagnosed with diabetes aged 18-75 years

DENOMINATOR SAMPLING FRAME

Patients associated with provider

DENOMINATOR (INDEX) EVENT

Clinical Condition

DENOMINATOR INCLUSIONS/EXCLUSIONS

Inclusions
All patients diagnosed with diabetes aged 18-75 years

Exclusions

- Documentation that aspirin therapy was not indicated (e.g., patients less than 40 years old);
- Documentation of medical reason(s) for not prescribing aspirin therapy (e.g., allergy/contraindication);
- Documentation of patient reason(s) for not prescribing aspirin therapy (e.g., economic, social, religious)

NUMERATOR INCLUSIONS/EXCLUSIONS

Inclusions
The number of patients from the denominator who were prescribed aspirin therapy (dose greater than or equal to 75 mg)

Exclusions
None

DENOMINATOR TIME WINDOW

Time window follows index event

NUMERATOR TIME WINDOW

Fixed time period

DATA SOURCE

Medical record
Pharmacy data

LEVEL OF DETERMINATION OF QUALITY

Individual Case

PRE-EXISTING INSTRUMENT USED

None

Computation of the Measure

SCORING

Rate

INTERPRETATION OF SCORE

Better quality is associated with a higher score

ALLOWANCE FOR PATIENT FACTORS

Unspecified

STANDARD OF COMPARISON

Internal time comparison

Evaluation of Measure Properties

EXTENT OF MEASURE TESTING

Unspecified

Identifying Information

ORIGINAL TITLE

Percentage of patients who were prescribed aspirin therapy (dose greater than or equal to 75 mg).

MEASURE COLLECTION

National Diabetes Quality Improvement Alliance Performance Measures

MEASURE SET NAME

National Diabetes Quality Improvement Alliance Performance Measurement Set for Adult Diabetes

DEVELOPER

National Diabetes Quality Improvement Alliance

ADAPTATION

Measure was not adapted from another source.

RELEASE DATE

2003 May

MEASURE STATUS

This is the current release of the measure.

SOURCE(S)

National Diabetes Quality Improvement Alliance performance measurement set for adult diabetes. Chicago (IL): National Diabetes Quality Improvement Alliance; 2003 May 1. 11 p.

MEASURE AVAILABILITY

The individual measure, "Percentage of Patients Who were Prescribed Aspirin Therapy (Dose Greater Than or Equal to 75 mg)," is published in the "National Diabetes Quality Improvement Alliance Performance Measurement Set for Adult Diabetes." This document is available in Portable Document Format (PDF) from the National Diabetes Quality Improvement Alliance Web site.

NQMC STATUS

This NQMC summary was completed by ECRI on December 9, 2003. The information was verified by the measure developer on August 19, 2004.

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